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# 1972 Cabbage Cultivar Evaluation Trials

OHIO AGRICULTURAL R & D CENTER

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GREEN SPRINGS CROPS RESEARCH UNIT  
Green Springs, Ohio

Ohio Agricultural Research and Development Center



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## Cabbage Cultivar Evaluation Trials--1972

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The cabbage cultivar evaluation trials were conducted at the OARDC Green Springs Crops Research Unit near Green Springs. The soil is a sandy loam. The plots received 1600 lb./A of 6-12-12 fertilizer, 1 lb./A of boron and 3 lb./A of Diazinon pre-plant incorporated. In addition, 6-24-12 at 200 lb./A was banded in the rows at planting. Treflan at .42 lb./A was pre-plant incorporated for weed control.

The plantings were direct-seeded on April 6 using a Planet Jr. seeder, except for lines 11C-X88 and 11C-X100 which were seeded on April 18. Rows were 30 ft. long on 30-in. centers. The rows were hand thinned to give a 12-in. spacing for the fresh market lines and 18-in. for the processing lines. Each cultivar was replicated three times.

Cabbage maggot was a serious problem and necessitated the application of two drenches of Diazinon and one of Guthion in addition to the pre-plant treatment. Nevertheless, the stands were seriously reduced in the plots of the processing cultivar trial and slightly reduced in the fresh market trial. This undoubtedly accounted for the reduced yields in these trials. Other insect problems were adequately controlled by recommended insecticide applications.

When the fresh market cultivars reached lowest maturity, each of the authors individually evaluated each cultivar prior to harvest for external color, uniformity of size and maturity, plant size, head shape, plant uprightness, leaf bloom, wrapper-leaf cover, and amount of bursting (see Table 1). The mature heads were then harvested, counted, weighed and evaluated for firmness. Three heads of each cultivar from each replicate were cut and the core length and polar and equatorial diameters recorded. Additional harvests were made as the heads reached harvest maturity and their numbers and weight recorded.

Cultivars of the processing trial were harvested when about 10% of the heads were bursted and all the heads were harvested at one time to simulate a mechanical harvest. Pre-harvest ratings were made on head shape, plant size, uniformity and plant uprightness. The number and weight of heads harvested were recorded. Data were also taken from a 3-head sample on core length, polar diameter, mid-rib thickness and firmness.

The 1972 season was characterized by below normal temperatures and above normal rainfall. Neither condition, however, was sufficiently severe to have any apparent adverse effects on the cabbage. There was an occasional elongated head which when cut, showed some evidence of seed-stalk formation. This condition was not serious and no differences between cultivars were apparent. The results of the observations are presented in Tables 1 and 2.

We wish to express our sincere appreciation to the several seed companies who provided us with seed for the trials and to other persons on our staff who assisted in obtaining the seed.

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TABLE 1.--Yield and Quality Characteristics of Cabbage Cultivars for Fresh Market.  
Green Springs. 1972.

Cultivar	First Harvest		T/A First Harvest	Total T/A	lb/head	Core Length (in.)	Polar Dia. (in.)	Equatorial Dia. (in.)
	Day No.	%						
Babyhead (Stokes)	197	47.8	8.0	15.6	2.34	2.44	5.52	6.13
Meteor (Stokes)	201	84.9	12.6	13.3	1.99	2.46	5.82	5.42
Early Marvel (Stokes)	189	42.4	6.5	15.3	2.40	3.56	5.54	6.21
Harvester Queen (Herbst)	201	65.1	15.3	20.3	4.88	3.32	6.99	7.55
Special Golden Acre (Robson)	191	49.0	6.7	13.6	2.76	3.10	6.64	5.95
Badger Ballhead (Letherman)	208	41.0	7.1	17.4	2.95	3.32	6.15	5.62
Copenhagen YR (Letherman)	197	56.6	9.2	16.1	3.61	3.50	7.11	6.98
Banner (Letherman)	189	49.3	3.3	7.5	2.55	3.07	6.10	6.30
Banner (Asgrow)	189	48.7	5.02	10.5	2.77	3.48	5.92	5.98
Golden Acre (Letherman)	191	36.4	6.5	18.0	2.82	2.79	6.21	6.04
Headstart (Asgrow)	189	42.6	7.2	16.7	3.66	3.25	6.65	6.59
Little Rock (Letherman)	206	54.7	9.8	18.0	3.51	2.85	6.55	6.54
Superette (Letherman)	199	52.7	14.3	25.2	3.52	2.69	6.42	6.75
Pacesetter (Holmes)	189	48.9	7.2	14.4	3.30	3.25	6.46	6.63
Market Topper (Harris)	191	37.9	6.6	17.7	2.77	3.58	5.61	6.15
Market Prize (Harris)	201	72.7	12.6	17.5	3.93	3.21	5.87	6.75
Golden Acre -84 (Harris)	189	71.1	11.1	15.6	3.58	2.54	6.55	6.54
King Cole (Harris)	197	39.7	13.6	31.9	4.23	3.46	7.17	7.54
Market Victor (Harris)	190	65.2	2.2	3.6	3.40	2.46	6.29	6.21
Hybrid - W (Harris)	199	69.8	16.2	23.3	5.60	2.92	7.54	8.23
Hybrid - O (Harris)	201	41.9	3.7	8.4*	4.08	3.14	5.79	6.99
Sanibel (Harris)	198	61.6	10.8	17.7	4.82	3.02	6.91	7.43
Stonehead YR (Letherman)	189	44.9	4.4	9.8	2.06	2.23	5.38	5.56
Pack Rite #42 (Herbst)	189	32.6	4.3	13.6	2.96	2.65	5.87	6.47
11C-X88 (Ferry-Morse)	203	55.2	8.4	15.3	2.73	2.69	5.50	6.05
11C-X100 (Ferry-Morse)	201	44.2	11.5	26.5	3.18	2.75	5.98	6.37

Cultivar	Firmness Rating	Ext. Color Rating	Uniformity Rating	Plant Size Rating	Head Shape	Uprightness Rating	Leaf Bloom	Leaf Cover	Burst Rating
Babyhead	1.7	1.0	2.3	1.0	2.0	2.0	2.3	2.3	1.0
Meteor	1.0	3.0	1.7	2.0	2.0	1.7	3.0	1.0	1.0
Early Marvel	1.7	1.0	1.3	1.0	2.0	2.0	1.3	2.7	2.3
Harvester Queen	1.0	1.0	1.3	3.0	2.0	3.0	2.0	2.7	1.0
Special Golden Acre	1.3	1.0	2.0	2.0	1.7	2.0	1.7	2.7	2.7
Badgar Ballhead	1.3	2.7	2.0	2.0	2.0	2.7	2.7	1.0	1.0
Copenhagen YR	2.0	1.0	1.3	2.3	2.0	2.3	1.3	2.7	1.3
Banner	1.1	1.0	1.9	1.9	2.0	1.1	2.0	2.0	1.0
Banner	1.7	1.0	2.0	2.0	2.0	1.3	2.0	2.0	2.0
Golden Acre	1.3	1.0	2.0	2.0	2.0	2.3	1.7	2.3	2.7
Headstart	1.3	1.7	1.7	2.7	2.0	2.3	2.0	2.0	2.7
Little Rock	1.0	2.3	2.0	2.3	2.0	2.3	3.0	1.0	1.0
Superette	2.0	2.3	1.7	2.7	2.0	2.0	3.0	1.0	1.0
Pacesetter	1.0	1.7	2.3	2.3	2.0	2.7	1.7	2.0	2.0
Market Topper	1.3	1.3	2.3	2.7	2.0	1.7	2.7	1.7	1.0
Market Prize	1.0	2.0	1.6	2.4	2.0	3.0	2.9	2.0	1.0
Golden Acre -84	1.3	1.0	2.0	2.0	2.0	2.0	1.7	3.0	3.0
King Cole	2.3	2.0	2.0	2.7	2.0	2.3	2.3	1.0	1.0
Market Victor	1.0	2.1	2.2	1.9	2.0	3.0	2.9	3.0	1.9
Hybrid - W	1.0	2.0	1.7	3.0	2.0	3.0	2.7	1.3	1.0
Hybrid - O	1.1	3.0	1.0	2.9	2.0	3.0	3.0	1.0	3.0
Sanibel	1.0	2.0	2.0	1.7	2.0	1.3	2.0	1.7	1.0
Stonehead YR	1.3	2.0	2.0	1.7	2.0	1.3	2.0	1.7	1.0
Pack Rite #42	1.0	2.0	2.1	1.9	2.0	1.6	2.9	2.0	2.0
11C-X88	1.0	2.7	1.7	2.0	2.0	2.3	3.0	1.0	1.0
11C-X100	1.0	2.3	1.7	2.0	2.0	2.7	2.3	1.0	1.0

Firmness: 1-firm, 2-medium firm, 3-soft  
 External Color: 1-green, 2-blue green, 3-blue  
 Uniformity: 1-good, 2-fair, 3-poor  
 Plant Size: 1-small, 2-medium, 3-large  
 Head Shape: 1-pointed, 2-round, 3-flat  
 Uprightness: 1-upright, 2-slightly tipped, 3-very tipped

Leaf Bloom: 1-slight, 2-moderate, 3-heavy  
 Leaf Cover: 1-good, 2-fair, 3-poor  
 Burst: 1-none, 2-slight, 3-moderate, 4-severe

\* Reduced Stand due to low germination.

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TABLE 2.--Yield and Quality Characteristics of Cabbage Cultivars for Processing.  
Green Springs. 1972.

Cultivar	Day No. Harvested	Tons/ Acre	lb/head	Core length (in.)	Polar Dia. (in.)	Mid-rib Rating*	Firmness Rating*	Head Shape*	Plant Size*	Uniformity Rating*	Plant Uprightness*
King Cole (FM)	119	21.6	10.7	4.14	9.02	2.0	1.0	2.0	2.7	1.0	3.0
Sanibel (Harris)	222	19.5	8.8	3.69	8.47	2.7	1.0	2.0	1.7	1.7	2.3
Roundup (FM)	227	24.9	10.8	5.14	8.50	2.0	1.0	2.0	2.3	1.7	2.0
Superette (FM)	224	29.2	10.0	4.39	8.69	2.3	1.0	2.0	2.7	1.0	2.0
Harvester Queen (NK)	219	12.7	6.7	3.58	8.16	3.0	1.0	2.0	2.0	2.0	2.3
TBR Globe (NK)	229	31.0	10.5	3.14	8.92	1.3	1.0	2.0	2.0	2.3	2.0
Hybrid Blue Chip (FM)	216	17.5	7.5	3.72	8.25	2.7	1.0	2.0	2.0	1.0	2.3
11C x 36 (FM)	229	28.4	9.7	3.39	8.64	2.0	1.0	2.0	2.7	1.7	2.0
11CX - X91 (FM)	227	23.1	8.9	3.94	7.64	1.7	1.0	2.0	1.3	2.3	2.0
Regina (B131) (Asgrow)	227	12.6	8.2	5.06	7.92	2.0	1.0	2.0	2.0	2.3	2.7
NCX 903 (Nia.)	219	17.1	6.2	4.50	7.00	2.0	1.0	2.0	1.7	2.7	2.3
XP-551 (Asgrow)	224	23.3	10.4	4.25	7.64	2.0	1.0	2.7	2.7	1.7	2.3
6036 (Keystone)	216	16.5	6.2	3.86	7.53	2.7	1.0	2.0	2.0	1.3	2.0
7234 (Keystone)	229	23.7	5.7	4.66	7.50	1.0	1.0	2.0	1.3	2.3	2.0
6040 (Keystone)	219	21.1	6.4	3.91	7.58	2.7	1.0	2.3	2.0	2.3	1.3
6525 (Keystone)	214	14.0	6.0	3.81	7.03	1.9	1.0	2.0	2.0	1.0	2.8
3425 (Keystone)	208	19.5	6.7	3.53	7.50	3.0	1.0	2.5	1.8	1.7	2.7
Pack Rite #42 (Herbst)	208	21.2	6.9	4.08	7.75	3.0	1.0	2.0	2.0	1.7	2.7

\* Mid-rib: 1-thin, 2-medium, 3-thick  
 Firmness: 1-firm, 2-medium firm, 3-soft  
 Head Shape: 1-pointed, 2-round, 3-flat  
 Plant Size: 1-small, 2-medium, 3-large  
 Uniformity: 1-good, 2-fair, 3-poor  
 Plant Uprightness: 1-upright, 2-slightly tipped, 3-very tipped

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